

By this amendment, claims 1, 15, and 18 have been amended, claim 3 has been canceled, and new claim 22 has been added. Upon entry of this amendment, claims 1-2 and 4-22 will be pending.

Objections to the Declaration

In Section 3 of the Office Action, the Examiner has objected to the declaration as being defective for lacking the signatures from the inventors. An executed declaration was submitted to the U.S. Patent & Trademark Office on November 20, 2002. Accordingly, it is respectfully requested that this objection be withdrawn.

§103 Rejections

In Section 4 of the Office Action, the Examiner has rejected claims 1-3, 5-8, 10-12, 15-18, and 20-21 under 35 U.S.C. §103(a) as being unpatentable over Schwaderer et al. (U.S. Patent 6,393,496; hereafter referred to as "Schwaderer") in view of Fishler et al. (U.S. Patent 5,954,794; hereafter referred to as "Fishler"). Claim 3 has been canceled, thereby obviating the rejection to claim 3. It is respectfully submitted that Schwaderer and Fishler, as relied upon by the Examiner, does not disclose or suggest claims 1-2, 5-8, 10-12, 15-18, and 20-21.

Claim 1 of the present application calls for:

1. (Amended) Method for communication between an application program and a network device driver program through intermediate structure software, comprising the steps of:
 - a. supplying of application data units from the application program to a first program object being part of the intermediate structure software;
 - b. performing of first functions of the first program object on the application data units;
 - c. supplying of resulting first data units from the first program object to a second program object being part of the intermediate structure software;
 - d. performing of second functions of the second program object on the first data units;
 - e. supplying of the resulting second data units to the network device driver program;

wherein supplying data units between program objects is accomplished by passing references pointing to memory locations of the data units, and

wherein for at least one application data unit, the memory location storing data of the application data unit is the same memory location as the memory location storing at least some of the data of the corresponding first data unit and as the memory location for storing at least some of the data of the corresponding second data unit.

Accordingly, in claim 1, data for an application data unit is stored in a memory location and the application data unit is supplied to the first program object. The first program object performs first functions on the application data unit and at least some of the data for the resulting first data unit is stored in that same memory location. The first data unit is supplied to the second program object. The second program object performs second functions on the first data unit and at least some of the data for the resulting second data unit is stored in that same memory location. Therefore, the same memory location is used for storing data of the application data unit, the first data unit, and the second data unit.

The portions of Schwaderer and Fishler referenced by the Examiner do not appear to disclose or suggest claim 1. In particular, the combination of Schwaderer and Fishler referenced by the Examiner does not appear to disclose or suggest using the same memory location for storing data of the application data unit, the first data unit, and the second data unit, as called for in claim 1. It does not appear that the Examiner has explained how Schwaderer and Fishler address using this same memory location in rejecting claim 1 or in rejecting canceled claim 3. In rejecting claim 3, the Examiner refers to Schwaderer at column 4, lines 19-30. However, this portion of Schwaderer appears to address a media control layer. This portion of Schwaderer does not appear to address where data is stored for data units that are supplied between program objects. Accordingly, this portion does not appear to address using the same memory location to store data for data units that are being supplied between program objects as called for in claim 1.

The Examiner does not appear to rely upon Fishler to disclose this aspect of claim 1 (or in rejecting canceled claim 3).

Therefore, the portions of Schwaderer and Fishler referenced by the Examiner do not appear to disclose or suggest claim 1. Accordingly, it is respectfully submitted that the combination of Schwaderer and Fishler, as relied upon by the Examiner, does not anticipate or suggest claim 1, and so also does not anticipate or suggest claims 2, 4-14, and 19-22 that depend therefrom. Similar arguments apply to claims 15-18.

Furthermore, claim 20 calls for the method according to claim 10, wherein at least two of the data units of at least one service data unit are stored in non-contiguous portions of memory. The Examiner refers to element 30 of Fig. 3 of Schwaderer to disclose that data units are stored in non-contiguous portions of memory. It does not appear that the Examiner has explained how the box indicated by reference number 30 (defined as an operating system in Schwaderer; see, e.g., column 6, line 11) discloses using non-contiguous portions of memory. Therefore, it does not appear that the Examiner has explained how Schwaderer addresses that at least two of the data units of at least one service data unit are stored in non-contiguous portions of memory, as called for in claim 20. Accordingly, it is respectfully submitted that the Examiner has not established how the referenced combination of Schwaderer and Fishler discloses or suggests claim 20.

Based upon the foregoing, it is submitted that claims 1-3, 5-8, 10-12, 15-18, and 20-21 are not anticipated by nor rendered obvious by the teachings of Schwaderer and Fishler as relied upon by the Examiner. Accordingly, it is submitted that the Examiner's rejection of claims 1-3, 5-8, 10-12, 15-18, and 20-21 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

In Section 5 of the Office Action, the Examiner has rejected claims 4, 13, and 19 under 35 U.S.C. §103(a) as being unpatentable over Schwaderer in view of Fishler and further in view of Jardine (U.S. Patent 5,619,647; hereafter referred to as “Jardine”). It is respectfully submitted that Schwaderer, Fishler, and Jardine, as relied upon by the Examiner, do not disclose or suggest claims 4, 13, and 19.

Claims 4, 13, and 19 depend from claim 1. As discussed above, it is submitted that the referenced combination of Schwaderer and Fishler do not disclose or suggest claim 1. It does not appear that the Examiner relies upon Jardine to disclose or suggest claim 1. Therefore, it is respectfully submitted that the combination of Schwaderer, Fishler, and Jardine, as relied upon by the Examiner, does not anticipate or suggest claims 4, 13, and 19, through their dependence on claim 1.

Based upon the foregoing, it is submitted that claims 4, 13, and 19 are not anticipated by nor rendered obvious by the teachings of Schwaderer, Fishler, and Jardine, as relied upon by the Examiner. Accordingly, it is submitted that the Examiner’s rejection of claims 4, 13, and 19 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

In Section 6 of the Office Action, the Examiner has rejected claim 9 under 35 U.S.C. §103(a) as being unpatentable over Schwaderer in view of Fishler and further in view of Tanenbaum (“Computer Networks”; hereafter referred to as “Tanenbaum”). It is respectfully submitted that Schwaderer, Fishler, and Tanenbaum, as relied upon by the Examiner, do not disclose or suggest claim 9.

Claim 9 depends from claim 1. As discussed above, it is submitted that the referenced combination of Schwaderer and Fishler do not disclose or suggest claim 1. It does not appear that the Examiner relies upon Tanenbaum to disclose or suggest claim 1. Therefore, it is respectfully submitted that the combination of Schwaderer, Fishler, and Tanenbaum, as relied upon by the Examiner, does not anticipate or suggest claim 9, through its dependence on claim 1.

Based upon the foregoing, it is submitted that claim 9 is not anticipated by nor rendered obvious by the teachings of Schwaderer, Fishler, and Tanenbaum, as relied upon by the Examiner. Accordingly, it is submitted that the Examiner's rejection of claim 9 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

In Section 7 of the Office Action, the Examiner has rejected claim 14 under 35 U.S.C. §103(a) as being unpatentable over Schwaderer in view of Fishler and further in view of in view of Phillips et al. (U.S. Patent 6,289,393; hereafter referred to as "Phillips"). It is respectfully submitted that Schwaderer, Fishler, and Phillips, as relied upon by the Examiner, do not disclose or suggest claim 14.

Claim 14 depends from claim 1. As discussed above, it is submitted that the referenced combination of Schwaderer and Fishler do not disclose or suggest claim 1. It does not appear that the Examiner relies upon Phillips to disclose or suggest claim 1. Therefore, it is respectfully submitted that the combination of Schwaderer, Fishler, and Phillips, as relied upon by the Examiner, does not anticipate or suggest claim 14, through its dependence on claim 1.

Based upon the foregoing, it is submitted that claim 14 is not anticipated by nor rendered obvious by the teachings of Schwaderer, Fishler, and Phillips, as relied upon by the Examiner.

Accordingly, it is submitted that the Examiner's rejection of claim 14 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

Conclusion

In view of the foregoing, entry of this amendment, and the allowance of this application with claims 1-2 and 4-22 is respectfully solicited.

In regard to the claims amended herein and throughout the prosecution of this application, it is submitted that these claims, as originally presented, are patentably distinct over the prior art of record, and that these claims were in full compliance with the requirements of 35 U.S.C. §112. Changes to these claims, as presented herein, are not made for the purpose of patentability within the meaning of 35 U.S.C. §§101, 102, 103 or 112. Rather, these changes are made simply for clarification and to round out the scope of protection to which Applicants are entitled.

In the event that additional cooperation in this case may be helpful to complete its prosecution, the Examiner is cordially invited to contact Applicants' representative at the telephone number written below.

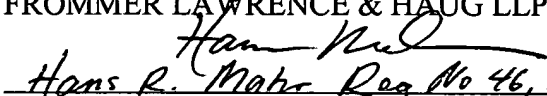
The Commissioner is hereby authorized to charge any insufficient fees or credit any overpayment associated with the above-identified application to Deposit Account 50-0320.

Attached hereto is a marked-up version of the changes made to the specification by the current amendment. The attached page is captioned "**Version with Markings to Show Changes Made.**"

Respectfully submitted,

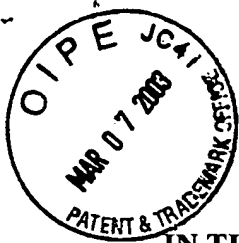
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

As shown below, claims 1, 15, and 18 have been rewritten, claim 3 has been canceled, and new claim 22 has been added.

Claims 1, 15, and 18 have been rewritten as follows:

--1. (Amended) Method for communication between an application program and a network device driver program through intermediate structure software, comprising the steps of:

- a. supplying of application data units from the application program to a first program object being part of the intermediate structure software;
 - b. performing of first functions of the first program object on the application data units;
 - c. supplying of resulting first data units from the first program object to a second program object being part of the intermediate structure software;
 - d. performing of second functions of the second program object on the first data units;
 - e. supplying of the resulting second data units to the network device driver program;
- wherein supplying data units between program objects is accomplished by passing

references pointing to memory locations of the data units, and

wherein for at least one application data unit, the memory location storing data of the application data unit is the same memory location as the memory location storing at least some of the data of the corresponding first data unit and as the memory location for storing at least some of the data of the corresponding second data unit.--

--15. (Amended) System for communication between an application program and a network device driver program and vice versa through intermediate structure software, comprising.

a. a first program object being part of the intermediate structure software and for performing of first functions on data units, said data units being transferred to and from the application program and data units being transferred to and from said first program object;

b. a second program object being part of the intermediate structure software and for performing of second functions on said data units, said data units being transferred to and from said second program object and data units being transferred to and from the network driver;

wherein transferring data units between program objects is accomplished by passing references pointing to memory locations of the data units, and

wherein for at least one data unit, data of the data unit is not moved to a different memory location while the first program object performs said first functions and while the second program object performs said second functions.--

--18. (Amended) Method for communication between a network device driver program and an application program through intermediate structure software, comprising the steps of:

a. supplying of first data units from the network device driver program to a first program object or protocol object being part of the intermediate structure software;

b. performing of first functions of the first program object on said first data units;

c. supply of resulting second data units from the first program object to a second program object being part of the intermediate structure software;

d. performing of second functions of the second program object on the second data units;

e. supplying of resulting application data units from the second program object to said application program;

wherein supplying data units between program objects is accomplished by passing references pointing to memory locations of the data units, and

wherein for at least one application data unit, the memory location storing data of the application data unit is the same memory location as the memory location storing at least some of the data of the corresponding first data unit and as the memory location for storing at least some of the data of the corresponding second data unit.--

Claim 3 has been canceled.

New claim 22 has been added as follows:

--22. (New) Method according to claim 1, further comprising creating a service data unit for each application data unit, each service data unit including a size value indicating the size of data of the application data unit and an offset value indicating the memory location storing data of the application data unit,

wherein supplying data units between program objects by passing references includes passing service data units corresponding to the supplied data units.--

END AMENDMENT